U.S. Patent Application No. 10/561,632 Attorney Docket No. 10191/4152 Response to Office Action of August 1, 2007

## **AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

## **Listing Of Claims:**

- 1-13. (Canceled).
- 14. (Currently Amended) A simulation system for a computer-implemented simulation and verification of a control system under development, comprising:

an arrangement for performing a plurality of simulation processes with corresponding memory modules and interface modules, wherein the <u>memory</u> modules include distinct memory locations for inter-module communication, and the system modules are dynamically reconfigured with each other.

- 15. (Currently Amended) A The simulation system according to claim 14, wherein a simulation is performed by running a control system simulation model, the simulation model including a number of sub-models being performed on one of the plurality of system modules, respectively.
- 16. (Currently Amended) A <u>The</u> simulation system according to claim 14, wherein at least some of the <u>system</u> modules are dynamically reconfigurable for communication via distinct memory locations.
- 17. (Currently Amended) A <u>The</u> simulation system according to claim 16, further comprising: a cross-bar switch for dynamic configuration of the distinct memory locations.
- 18. (Currently Amended) A <u>The</u> simulation system according to claim 17, wherein the cross-bar switch comprises an interconnection scheme for coordination of the distinct memory locations.
- 19. (Currently Amended) A <u>The</u> simulation system according to claim 14, further comprising: a host-target communication interface for connection of the simulation system with a simulation host, an input interface, and an output interface.

NY01 1055631 v3 2

U.S. Patent Application No. 10/561,632 Attorney Docket No. 10191/4152 Response to Office Action of August 1, 2007

- 20. (Currently Amended) A <u>The</u> simulation system according to claim 14, wherein the modules include at least one output port server for communication interconnection with respective output port service of other modules.
- 21. (Currently Amended) A computer-implemented method for simulating and verifying a control system under development by means of a computer simulation system, comprising:

performing a plurality of simulation processes with corresponding memory modules and interface modules, wherein inter-module communication is performed by copying signal values from one module memory location to another distinct module memory location; and

communicating between modules by a cross-bar switch for dynamic reconfiguration of the distinct memory locations.

- 22. (Canceled).
- 23. (Currently Amended) A <u>The</u> method according to claim <u>2221</u>, wherein dynamic reconfiguration of the distinct memory locations is achieved according to an interconnection scheme.
- 24. (Currently Amended) A <u>The</u> method according to claim 21, wherein inter-module communication is achieved via output port service of the various modules.
- 25. (Currently Amended) A computer readable medium having a computer program provided with program code for carrying out a, which is executable by a computer, implemented method for simulating and verifying a control system under development by means of a simulation system, comprising:

program code for performing a plurality of simulation processes with corresponding memory modules and interface modules, wherein inter-module communication is performed by copying signal values from one module memory location to another distinct module memory location according to any one of the claims 8 to 11, when the computer program is run on a computer to enable dynamic interconnection of the system modules.

26. (Canceled).

NY01 1055631 v3